

Remote Sensing of Forest Cover in Northwestern Russia and Fennoscandia

Regional Thematic Workshop

June 25-27, 2001

**Center for International Environmental Cooperation of Russian Academy of Sciences
(INENCO Center of RAS)
St. Petersburg, Russia**

The regional Workshop on Remote Sensing of Forest Cover in Northwestern Russia and Fennoscandia will be held in St. Petersburg, Russia from June 25 to June 27, 2001. This workshop is in support of Global Observation of Forest Cover (GOFC, <http://www.gofc.org/gofc>), which is a panel of the Global Terrestrial Observing System. GOFC's overall objective is to improve the quality and availability of satellite observations of forests at regional and global scales and to produce useful, timely, and validated information products from these data (together with in-situ observations) for a wide variety of users.

GOFC is being implemented concurrently as three specific but highly interrelated components: land cover characteristics and changes; forest fire monitoring and mapping; and forest biophysical processes. At the same time, GOFC is also sponsoring regional meetings and networks to reflect the specific information requirements of different forest biomes. To date, a number of regional topical forest workshops have already been held. The first GOFC workshop on Boreal Forests was held in Novosibirsk (Academgorodok), Russia in August 2000. One of the recommendations from that workshop was to have a series of more focused, regional meetings.

The goal of this regional GOFC workshop is to promote a coordinated effort among scientists in the region towards building an observational boreal forest network which would result in operational monitoring of forest cover and forest cover change, and to make data and information on forests usable and accessible. The workshop will examine current uses of remote sensing in studies of forest cover and carbon exchange in the region, evaluate existing data sets useful for validation and interpretation of remote sensing data products, identify future needs of different user groups, and plan future interdisciplinary research and exchange activities. The workshop will also discuss forest inventory, monitoring, management, and conservation. We will explore current gaps in our knowledge of land use and the carbon budget in this region, including understanding of changing disturbance regimes and driving forces of land use change.

The workshop will be hosted by the Center for International Environmental Cooperation (INENCO) of the Russian Academy of Sciences (RAS). Financial support for the workshop is being provided by NASA and by the International START Secretariat. Attendance at the workshop is by invitation only.

Abstracts of presentations will be posted at this site on June 1, 2001.

Organizing committee (alphabetical order):

Garik Gutman, Manager, Land Cover-Land Use Change Program, NASA, USA

Tuomas Häme, VTT Automation, Remote Sensing, Finland

Alexander S. Isaev, International Forest Institute, Moscow, Russia

Olga N. Krankina, Department of Forest Science, Oregon State University, USA

Gennadii V. Menzhulin, INENCO Center, St. Petersburg, Russia

Yuri A. Pykh, INENCO Center, St. Petersburg, Russia

John Townshend, GOFC Chairman, University of Maryland, USA
Tom Stone, The Woods Hole Research Center, USA

Related Web Sites:

Global Observation of Forest Cover project (<http://www.ccrs.nrcan.gc.ca/gofc/>)

Land Cover-Land Use Change-NASA (<http://lcluc.gofc.nasa.gov>)

START (<http://www.start.org/>)

Modeling Carbon Dynamics and Their Economic Implications in Two Forested Regions: Pacific Northwestern USA and Northwestern Russia (<http://sequoia.fsl.orst.edu/lter/research/hjarel/russia.htm>).

Presentations

Welcome, GOFC and related International Programs

(Talks focus on program goals, issues and questions they address, general approaches and methods. Results in brief if at all)

Welcome – Mr. A.Galimzyanov (Department of Environmental Protection of the NW European Administrative Region of Russian Federation, Dr.Yuri Pykh - President of the INENCO Center, organizers (Krankina/Menzhulin))

GTOS/GOFC (Townshend)

LUCC – Skole

NASA LCLUC (Gutman)

LUCCF and CarboEurope (Han Dolman, Alterra)

CORINE (Chris Steenmans and/or J.-L. Roujean)

BALANS project (Birgitta Olsson)

Regional Forest Cover Mapping/Monitoring and Carbon Studies

(talks focus on results, lessons learned / challenges, issues to address in the future)

1. Forest cover and Carbon

Human impact on Forest Cover and Carbon in NW Russia (TBD)

Forest cover and carbon dynamics in St. Petersburg region with Landsat (Cohen)

Biomass with radars (in case they do not have a project in the region – we could include them as a program here) Thuy Le Toan (CESBIO, France) or Christianna Schmulilius (DLR, Germany) or Shaun Quegan (U.Sheffield, UK)

Remote sensing of forest cover in Russia (ScanEx)

Remote Sensing of Forest Cover in Norway (TBD)

Process studies of C flux (Vygodskaya)

Process studies in Fennoscandia (Estonia – Tiit Nilson or Roujean)

Tver' transect (Kozoderov)

Mapping soil C stores (Chertov)

Carbon and LCLUC in Western Russia (Shvidenko)

Carbon and LCLUC in Scandinavia (Pekka Kauppi)

Fire monitoring and the role of fires in carbon exchange (Korovin)

2. Socio-economic aspects of LCLUC

Forest Management options for increasing regional C stores (Mark Harmon and O. Krankina)
Economics of Landuse in NW Russia (Larisa Markushina)
Projected effects of C sequestration policies in Scandinavia (Norway –Hans Hoen)
Population dynamics, land-use practices and social welfare in NW Russia (TBD)

3. Application development and data resources, their availability, and user needs

Use of remote sensing in forest inventory and management planning – Tuomas Hame
Forest inventory data in Russia and its availability - Treyfeld
The methods for detecting of little disturbed forest territories (forest lands undisturbed by humans) in the European North of Russia. A.J. Jaroshenko (Green Peace)
Connectivity, Mirnet (Don Deering)
Studies of hydrological consequences of land cover change in Northwestern Russia (objectives and information basis). (Georgiadi)
"Remote Sensing Information and Modeling of Nonstationary Energy and Matter Transport Processes in Inhomogeneous Forest Cover". A. F.Sogachyev (Max Plank Institute of Biogeochemistry, Jena,Germany) and G. V. Menzhulin (INENCO Center of RAS, St.Petersburg, Russia).

4. Discussion papers

(talks focus on science questions and research needs for the future and approaches to addressing them)

Interaction between water and C cycle (Kobak)
Data needs for monitoring forest cover and C stores (Timo Karjalainen)
Integration of biological and social science in studies of forest cover (Justice)
The role of land-use legacies in C exchange of forest ecosystems (Krankina)

5. Poster presentations (All participants not giving oral presentations are invited to provide poster presentations. The posters are to organized in several topics/sections, if needed)

Forest management planning and GIS applications (Arhipov?)
Forest type and biomass mapping using seasonal response in spaceborne
L-band SAR data (Rauste and Häme)